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☐	L6	L5 and server and client and provider	9
☐	L5	l2 and stream and video and audio	23
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L6: Entry 8 of 9   File: USPT   Jul 17, 2001

DOCUMENT-IDENTIFIER: US 6262724 B1
TITLE: User interface for presenting media information

Brief Summary Text (2):
The present invention relates to user interfaces for processing (e.g., generating,
storing, transmitting and/or receiving, playing back/displaying, editing,
referencing, etc.) media information, such as time-based media data representing
video and/or audio. In particular, the present invention provides an interactive
digital processing system-controlled graphical user interface that provides
functionality for play back or other processing of time-based and still media data.

Brief Summary Text (4):
There are a number of file structures used today to store time-based media: audio
formats such as AIFF, video formats such as AVI, and streaming formats such as
RealMedia. They are different at least in part because of their different focus and
applicability. Some of these formats are sufficiently widely accepted, broad in
their application, and relatively easy to implement, that they are used not only
for content delivery but also as interchange formats such as the QuickTime.TM. file
format. The QuickTime format is used today by many web sites serving time-based
data; in many authoring environments, including professional ones; and on many
multimedia CD ROM (e.g., DVD or CD-I) titles.

Brief Summary Text (5):
The QuickTime media layer supports the relatively efficient display and management
of general multimedia data, with an emphasis on time-based material (video, audio,
video and audio, motion graphics/animation, etc.). The media layer uses the
QuickTime file format as the storage and interchange format for media information.
The architectural capabilities of the layer are generally broader than the existing
implementations, and the file format is capable of representing more information
than is currently demanded by the existing QuickTime implementations. Furthermore,
the QuickTime file format has structures to represent the temporal behavior of
general time-based streams, a concept which covers the time-based emission of
network packets, as well as the time-based local presentation of multimedia data.

Drawing Description Text (5):
FIG. 3B shows an example of an audio-only window for a time-based media player.

Detailed Description Text (2):
The present invention provides methods and apparatuses for processing media
information. In one embodiment of the present invention, a graphical user interface
(GUI) is provided that includes a number of features for referencing, playing back,
and/or otherwise processing time-based media information (e.g., video, animated
graphics, and/or audio, etc.). In one embodiment, the GUI, also sometimes referred
to as a media player, provides functionality for processing time-based media in the
QuickTime format, such as QuickTime "movies," which typically include audio and
motion video information. Although the present invention is described with
reference to the QuickTime media data format, it will be appreciated that the
invention may also be used in a variety of environments, in conjunction with other
media data formats, and with various types of data processing systems having a

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number of different types of architectures. Thus, the invention should not be limited to the systems, media data formats, or architectures disclosed herein, which are meant only to provide an understanding of the invention, whose scope is defined by the claims which follow.

Detailed Description Text (4):
FIG. 1 is a diagram of a network of computer systems in which media data may be processed, according to one embodiment of the present invention. As shown in FIG. 1, a network 100 includes a number of client computer systems that are coupled together through an Internet 122. It will be appreciated that the term "Internet" refers to a network of networks. Such networks may use a variety of protocols for exchange of information, such as TCP/IP, ATM, SNA, SDI, etc. The physical connections of the Internet and the protocols and communication procedures of the Internet are well known to those in the art.

Detailed Description Text (5):
Access to the Internet 122 is typically provided by Internet service providers (ISPs), such as the ISP 124 and the ISP 126. Users on client systems, such as the client computer systems 102, 104, 118, and 120, generally obtain access to the Internet through Internet service providers, such as ISPs 124 and 126. Access to the Internet may facilitate transfer of information (e.g., email, text files, media files, etc.) between two or more digital processing systems, such as the client computer systems 102, 104, 118, and 120 and/or a Web server system 128. For example, one or more of the client computer systems 102, 104, 118, and 120 and/or the Web server 128 may provide media data (e.g., video and audio, or video, or audio) to another one or more of the client computer systems 102, 104, 118, and 120 and/or the Web server 128. For example, in one embodiment of the invention, one or more of the client computer systems 102, 104, 118 and 120 may request play-back of time-based media data that may be stored at a remote location, such as the Web server 128. In the case of remote storage, the data may be transferred as a file (e.g. downloaded) and then played back after transferring the file or, if a streaming media system is available, the data may be played back at the client while the transfer occurs. In another embodiment, the requested time-based media data may be stored locally at the client computer system 102, 104, 118, and/or 120. In the case of local storage, the client system may play back time-based media using a playback system (e.g. a QuickTime Player) without requiring a network connection.

Detailed Description Text (6):
The Web server 128 typically includes at least one computer system to operate with one or more data communication protocols, such as the protocols of the World Wide Web, and as such, is typically coupled to the Internet 122. Optionally, the Web server 128 may be part of an ISP which may provide access to the Internet and/or other network(s) for client computer systems. The client computer systems 102, 104, 118, and 120 may each, with appropriate web browsing software, access data, such as HTML documents (e.g., Web pages), which may be provided by the Web server 128. Such data may provide media, such as QuickTime movies, which may be played back/presented by the client computer systems 102, 104, 118, and 120.

Detailed Description Text (7):
The ISP 124 provides Internet connectivity to the client computer system 102 via a modem interface 106, which may be considered as part of the client computer system 102. The client computer systems 102, 104, 118, and 620 may be a conventional data processing system, such as a Macintosh computer, a "network" computer, a handheld/portable computer, a Web TV system, or other types of digital processing systems (e.g., a cellular telephone having digital processing capabilities).

Detailed Description Text (8):
Similarly, the ISP 126 provides Internet connectivity for the client computer systems 104, 118 and 120. However, as depicted in FIG. 1, such connectivity may

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vary between various client computer systems, such as the client computer systems
102, 104, 118, and 120. For example, as shown in FIG. 1, the client computer system
104 is coupled to the ISP 126 through a modem interface 108, while the client
computer systems 118 and 120 are part of a Local Area Network (LAN). The interfaces
106 and 108, shown as modems 106 and 108, respectively, may represent an analog
modem, an ISDN modem, a cable modem, a satellite transmission interface (e.g.,
"Direct PC"), a wireless interface, or other interface for coupling a digital
processing system, such as a client computer system, to another digital processing
system. The client computer systems 118 and 120 are coupled to a LAN bus 112
through network interfaces 114 and 116, respectively. The network interfaces 114
and 116 may be an Ethernet-type, Asynchronous Transfer Mode (ATM), or other type of
network interface. The LAN bus is also coupled to a gateway digital processing
system 110, which may provide firewall and other Internet-related services for a
LAN. The gateway digital processing system 110, in turn, is coupled to the ISP 126
to provide Internet connectivity to the client computer systems 118 and 120. The
gateway digital processing system 110 may, for example, include a conventional
server computer system. Similarly, the Web server 128 may, for example, include a
conventional server computer system.

Detailed Description Text (9):
The system 100 may allow one or more of the client computer systems 102, 104, 118,
and 120 and/or the Web server 628 to provide time-based media data (e.g., video and
audio, or video, or audio) to another one or more of the client computer systems
102, 104, 118, and 120 and/or the Web server 128. As described below, the present
invention facilitates playing back and other functionality for processing the media
data.

Detailed Description Text (10):
FIG. 2 is a block diagram of a digital processing system which may be used to
process time-based media data, in accordance with one embodiment of the present
invention. For example, the digital processing system 150 shown in FIG. 2 may be
used as a client computer system (e.g., the client computer system 102, 104, 118,
and/or 120), a Web server system (e.g., the Web server system 128), a conventional
server system, etc. Furthermore, the digital processing system 150 may be used to
perform one or more functions of an Internet service provider, such as the ISP 124
or 126. The digital processing system 150 may be interfaced to external systems
through a modem or network interface 168. It will be appreciated that the modem or
network interface 168 may be considered as part of the digital processing system
150. The modem or network interface 168 may be an analog modem, an ISDN modem, a
cable modem, a token ring interface, a satellite transmission interface, a wireless
interface, or other interface(s) for providing a data communication link between
two or more digital processing systems.

Detailed Description Text (14):
In the system 150 shown in FIG. 2, the mass memory 162 (and/or the memory 154) may
store time-based media (e.g., video, audio, movies, etc.) which may be processed
according to the present invention. Alternatively, media data may be received by
the digital processing system 150, for example, via the modem or network interface
168, and stored and/or presented by the digital processing system 150, for example,
via the display 160 and/or I/O device(s) 166, which may include audio speakers,
headphones, and/or other media playback output devices. In one embodiment,
packetized media data may be transmitted across a data communication network, such
as a LAN and/or the Internet, in accordance with the QuickTime format to be
processed by the system 150 in accordance with the present invention. On the other
hand, the digital processing system 150 may locally store time-based media data in
the mass memory 162, the memory 164, and/or another machine-readable medium
accessible by the digital processing system 150, as well as executable code that
provides functionality for processing time-based media data in accordance with the
present invention.

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Detailed Description Text (19):
The media player 200 includes a number of other mechanisms for controlling
playback, display, and/or other processing of time-based media. For example, a
volume dial 220 controls the audio output level (e.g., through speakers,
headphones, or other audio output device). In one embodiment, a cursor controlled
through a pointing device (e.g., a mouse, trackball, touchpad, arrow keys of a
keyboard, etc.) or speech recognition enables a user to control the dial 220, as
well as other features of the media player 200. For example, in one embodiment, a
user may place the cursor upon the volume dial 200 using a pointing device, and
control the audio output level/volume by holding down the "click" button of the
pointing device (to select or "activate" the volume dial icon 220) and then moving
the cursor up or down to change the level/volume up or down, respectively. In one
embodiment, a volume level display/control 218 displays the current volume level by
highlighting on the display one or more graphical "level lines," wherein when more
lines are highlighted, the higher the volume. Thus, as the dial 220 is "turned up"
to increase the audio output level, more lines will become highlighted, and
conversely, when the dial 220 is "turned down" to decrease the volume, less lines
become highlighted in the volume level display control 218. In the embodiment
depicted in FIG. 3A, the user may also vary the audio output level/volume by
placing the cursor on the volume level/display control 218, activating the icon
(e.g., by pressing and holding a mouse or other pointing device selection/click
button), and moving the cursor to the right (to increase the volume) or to the left
(to decrease the volume), in which case the dial 220 will turn up or down,
respectively, while the level lines of the volume level/display control 218 will be
highlighted accordingly. Also, in one embodiment, the user may select (e.g. "click"
on) the audio icon 217 to turn off the audio portion of a presentation. As shown,
the media player 200 also includes a play button 216 and a pause button 212, which
allow play back and pausing of a (currently selected) time-based media file.

Detailed Description Text (20):
As described below, the present invention provides secondary or "drawer" or "panel"
or tray windows to be "opened" from the primary or media player 200 window. As
such, the drawer or panel or tray windows, when opened or closed in response to
user input, for example, will resemble drawers that open or close from the media
player 200 window, as shown in FIGS. 4, 5A, 6A and 6B. These drawer windows (e.g.
the favorite/channel drawer window 230), in one embodiment, are part of the primary
window and are moved with the primary window and are opened or closed with the
primary window. That is, when the primary window is moved around the desktop (on
the display screen), the drawer window is moved with the primary window and appears
attached to the primary window. When the primary window is first opened, the handle
portion of the drawer window is opened and is displayed and appears attached to the
primary window. When the primary window is closed (e.g. removed from the display
screen), the drawer window is closed. The drawer window, in one embodiment,
typically includes a handle portion which includes a drawer control (e.g. drawer
control 214) which may be used to slide the drawer window open (e.g. display
favorite/channel icons) or, if the drawer window is opened, to close the drawer
window so that only the handle portion, typically attached to the primary window on
an edge of the primary window, is displayed. The handle portion of the drawer
window may also include other controls, such as a resize control 208. In one
embodiment, objects, such as icons representing media (e.g. "favorites" or
"channels"), may be selected from regions outside of the drawer window (e.g. icons
on the desktop may be selected) and may be then dragged to a predetermined (e.g.
"tiled") region inside of the drawer window. This causes the selected object, in
one exemplary embodiment, to become a "favorite" or "channel." Similarly, an object
(e.g. an icon representing a favorite or channel media) may be selected within the
drawer window and dragged outside of the window (e.g. dragged to the desktop or to
a folder on the desktop or dragged to an icon representing a trash or waste
receptacle or function). This has the effect of either creating an alias or short
cut for the selected object (when dragged to a folder) or deleting the object from
the drawer window. Thus, the drawer window, in one embodiment, acts as a desktop

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window into which, and from which, objects (e.g. an icon of a favorite or a
channel) may be dragged and it appears as part of a primary window which presents
media data (e.g. displays still images or movies or plays back <u>audio</u> only, etc.).

<u>Detailed Description Text</u> (21):
The drawers or trays of the media player 200 provide additional functionality or
information in association with play back or other processing of a time-based media
file. For example, the tray associated with a controls button 206, as described
below, includes a number of other mechanisms to control play back and other
processing of a time-based media file, which mechanisms may include, for instance,
<u>audio</u> balance, bass, and treble controls, forward/reverse scan controls, step
back/forward controls, etc. As such, a user may activate the controls button 206
(e.g., by clicking/double clicking with a pointing device while the cursor is on
the controls button 206), and the control panel will, in one embodiment, "slide"
from the media player 200 window appearing as if it was a drawer hidden/closed
under the media player 200. Similarly, a favorite/channel drawer control 214, when
activated by the user (e.g., using a pointing device), opens a favorite/channel
drawer which is described in further detail below. Finally, an information button
210 opens an information tray 250 when activated and this tray will, in one
embodiment, slide from the media player 200, appearing as if it was a drawer
hidden/closed under the media player 200.

<u>Detailed Description Text</u> (22):
The size of the media player 200 and/or the motion <u>video</u> display window 202 may
also be varied by activating a resize control 208. In one embodiment, the media
player 200 is displayed at a default minimum size. In this embodiment, when the
resize control 208 is activated, two animated rectangles are displayed: one
animated rectangle represents the size of the motion display window 202 (with any
image displayed therein) and the other animated rectangle represents the media
player 200 window. Each animated rectangle represents the currently selected size
of one of these two windows, and thus each animated rectangle indicates the size of
the window if the currently selected size is ultimately selected by the user. As
such, the resize control 208 may be "dragged" by the cursor to resize the motion
<u>video</u> display window 202 (and any image displayed thereby) without changing the
size of the window 200 until the size of window 202 increases to a threshold size,
which in one embodiment, corresponds to substantially the edges of the media player
200 or a window 202 of dimensions 320.times.240 pixels. When this occurs, an
attempt to further enlarge the motion <u>video</u> display window 202 will enlarge the
media player 200 window and the window 202 together. In other words, if the outer
window rectangle is larger than the minimum (default size), the two rectangles grow
and shrink proportionally together. However, if the user attempts to shrink the
media player 200 window's animated rectangle below the minimum size, only the
motion <u>video</u> display window 202 (and its animated rectangle) will shrink, and the
size of the media player 200 window will remain unchanged from the minimum size.

<u>Detailed Description Text</u> (23):
FIG. 3B shows an example of an <u>audio</u>-only player window. The player window of FIG.
3B may include the same controls and drawers as the player of FIG. 3A except that
only <u>audio</u> media is played back through the player window of FIG. 3B.

<u>Detailed Description Text</u> (24):
It will be appreciated that the media presented through the various interfaces of
the invention is not limited to movies with <u>audio,</u> or movies without <u>audio, or</u>
<u>audio</u>-only time-based media (e.g. speeches or music), or still images or
combinations of these media. It also will be appreciated that the drawers may
contain any number of different types of controls or, generally, objects associated
with media or control of the presentation of media. These controls in the drawers
allow a user to manipulate and design a presentation of media or otherwise control
it. A drawer may contain a combination of controls (e.g. control buttons) and
favorites or channels of media, although in the embodiment shown in FIGS. 4, 6A and

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6B, the controls are displayed in one drawer separately from a drawer containing favorites and/or channels. It will also be appreciated that, in one instance, the favorites are merely preselected media (either locally stored or received from a remote site) which the user (or the system at the user's request or the system on its own) has decided to save for future use by designating the media as a favorite (which is similar to the manner in which a web site is selected as a favorite or is selected as a bookmark in a Web browser such as Microsoft's Internet Explorer or Netscape's Navigator). It will also be appreciated that a player window (e.g. window 200) may have multiple drawers for favorites or channels; for example, there may be two separate drawers for favorites and two separate drawers for channels. The controls may also be placed in separate drawers.

Detailed Description Text (28):
In FIG. 4, the drawer 230 is shown partially opened to reveal a favorite/channel row 244 and a portion of a row 246. The favorite/channel row 244 comprises favorite/channel wells 232, 234, 236, 238, and 240. Each favorite/channel well represents, in one embodiment, a fixed, predetermined, tiled display location within the drawer 230 that may contain a reference (e.g., a display/cursor activated icon) to particular time-based media source, which in one embodiment may be a particular time-based media file or a particular time-based media channel. For example, as shown in FIG. 4, the well 234 contains a media source icon 248 and the well 238 contains a media source icon 250, each of which may reference a particular time-based media file or channel or may reference a non-time-based media file. Each row of the drawer includes tiled compartments, each of which is designed to hold one media source icon. The filed compartments have a fixed, predetermined location, thereby preventing placement (in one embodiment) of a media source icon in an arbitrary location. Any attempt to drop an icon in an arbitrary location will result in the icon being placed into an available well (not already occupied by an icon). That is, the placement is restricted to the tiled (e.g. non-overlapping) locations. In one embodiment, the media player 200 may be generated and displayed on a client computer system, such as one shown in FIG. 1, and the media source icon 248 may reference a particular time-based media file, such as a QuickTime movie, that is stored locally by the client computer system or at a remote location (e.g., a Web server system) that provides the media file for play back (or other forms of presentation) by the media player 200 in response to a request. In one embodiment, such a play back request is performed by activating the media source icon 248 (e.g., by pointing the cursor thereon and clicking on it). For example, if the time-based media file comprises motion video, such will be displayed in the display window 202 after activating the associated media source icon. In one embodiment, when a source icon (e.g. icon 248) is activated, a highlighting is displayed around the edges of the well which contains the activated icon.

Detailed Description Text (29):
In addition, a media source icon, such as the media source icon 248, may reference a particular media channel, such as a news provider (e.g., CNN, Fox News, etc.), a major network (e.g., ABC, NBC, CBS, etc.), a shopping network, or another channel. Such channels correspond to sources that typically provide continuous time-based media information/programming via a media source, such as a Web server coupled to the Internet. Such a media source may stream media information into data packets that may transferred across a data processing network, such as the one shown in FIG. 1, according to the QuickTime or other media format and such data may not be stored locally (except perhaps for any ephemeral storage required for local playback). The address of such media is associated with the media source icon and is stored for quick access by the user.

Detailed Description Text (30):
Thus, wells may be filled with icons associated with files from the user's digital processing system (e.g., a file may be dragged from the desktop or other window/directory to a well in the drawer or a file menu associated with the drawer may be used to add an icon to a well in the drawer) or may be filled with icons

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(which may sometimes also be referred to as "bookmarks") associated with streamed
time-based media provided by a remote (e.g., Web) system. In one embodiment, a user
may subscribe to certain channels, media (Web) <u>servers,</u> etc., which will then
provide the icons associated with the subscribed media source(s) into wells in the
drawer and/or any other directory associated therewith. Thus, in one embodiment,
the drawer may be altered by the user or automatically altered/updated by a remote
<u>server</u> or other digital processing system by transferring, rearranging, adding, or
deleting time-based media icons therein. In one embodiment, the favorite/channel
drawer may contain icons associated with "favorite" media of the user.

<u>Detailed Description Text</u> (31):
In one embodiment, media source icons provide a graphical reference to the media
source associated therewith. For example, a particular frame of a motion <u>video</u> may
be used as a "thumbnail" to represent the media source (e.g., file, channel, etc.)
associated therewith. As such, data (e.g., a frame) from a particular media file or
other media source may be used to generate a media source icon in the drawer 230 to
reference that particular media file. On the other hand, a media source icon may
include text or symbols or other graphics or images to identify a media file or
channel associated therewith. For instance, the logo/symbol associated with a
particular news or network channel may be used as a media source icon that
references that channel to play back time-based media provided thereby when that
icon is activated.

<u>Detailed Description Text</u> (32):
In one embodiment, a particular time-based media icon may be highlighted
graphically when selected (e.g., by placement of the cursor thereon and/or single
clicking a pointing device thereon). Such highlighting, in one embodiment, includes
providing a border around a selected time-based media icon. It will be appreciated
that selection may, but does not always include, activation of the icon, the latter
of which runs/loads the media (e.g. file or channel) associated with the icon. For
example, in one embodiment, activating a particular time-based media icon is
performed by selecting and then clicking that icon, which in turn causes the time-
based media player 200 to play the time-based media file associated with that icon.
In one embodiment, the drawer 230 may slide closed after a source icon in a channel
has been selected for presentation (e.g. displaying <u>video</u> and reproducing the
associated <u>audio</u>).

<u>Detailed Description Text</u> (33):
FIG. 5A is a diagram of a time-based media player providing a favorite/channel
drawer generated as a GUI, according to one embodiment of the invention. In
particular, FIG. 5A shows the drawer 230 opened to a greater extent than shown in
FIG. 4, for example, to reveal several well rows, including the well rows 244 and
246, the latter of which was partially hidden in the view of the media player 200
shown in FIG. 4. In one embodiment, the amount of the drawer 230 which is visible
is controlled by the user. In one embodiment of the invention, selected wells or
well rows, such as the well rows 244 and/or 246, may be reserved for certain media
sources, such as certain favorites or channels of media provided by a media <u>server</u>.
On the other hand, other wells may be freely utilized to store media icons. In one
embodiment, time-based media icons may be transferred as icons and/or file names
associated with time-based media sources from other locations/directories (e.g., a
desktop or other window) of a digital processing system to a well of the drawer;
transferred from one well to another well within a drawer; and/or transferred from
a drawer to another location/directory of the digital processing system. In one
embodiment, known cursor dragging methods may be employed to facilitate such
transfers.

<u>Detailed Description Text</u> (35):
Another way to add a favorite into the drawer 230 is to open a media, such as a
movie, so that it is displayed within the window 202 (or in the case of an <u>audio</u>
fie, the <u>audio</u> file is ready to be played). Then, the user can use the pull down

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menu 200h to select the option "add favorite" which adds the media to the first
available well in the drawer 230.

Detailed Description Text (40):
FIG. 6B is a diagram of a time-based media player providing a control drawer window
generated as a GUI, according to one embodiment of the invention. In particular,
FIG. 6B shows the bottom portion of the media player 200 shown in FIG. 3 having
"opened" a control drawer 252. The control drawer 252 also represents a "drawer" or
secondary window that may be revealed (or opened) or hidden relative to the media
player 200 window. In one embodiment, the drawer 252 behaves relative to window 200
in the same manner as drawer 230 behaves relative to window 200. For example, the
drawer 252 appears attached to and moves with the window 200 when the window 200 is
moved around the desktop. In one embodiment of the invention, the control drawer
252 is provided to display additional controls/functionality for play back or other
processing of a time-based media by the media player 200. As shown in FIG. 6B and
the control drawer 252, such information may include, but is not limited to, <u>audio</u>
bass, treble, and balance controls, forward/backward scan, skip, etc.

Detailed Description Text (63):
In one embodiment, the media player 200 may play back or otherwise process time-
based media received over a network. For example, a QuickTime movie may be streamed
by a remote digital processing system, typically a <u>server,</u> to the user's local
system, where the user has requested the movie (e.g., by clicking on an icon in the
favorite/channel drawer of the media player being executed on the local system,
wherein the icon references the movie and/or the <u>server</u> that provides the movie).

Detailed Description Text (66):
FIGS. 9C-9H illustrate an alternative embodiment for a status message display for a
media player according to one embodiment of the invention. Each of these figures
shows a portion of the display control area 204. This portion shown may be the
middle of the area, for example, the middle of the area shown in FIG. 7A. In this
instance, the time bar may not be displayed while these messages scroll through
this area. FIG. 9C shows the beginning of a sequence of messages which may occur
when the media player is receiving a streaming media. It will be appreciated that
this embodiment of the present invention may be utilized with live or stored
streaming and may be used with non-streaming media; the content of the messages
would, of course, be tailored to provide the appropriate information depending on
the type of media and the type of connection and whether it is streaming or non-
streaming media As shown in FIG. 9C, the first message is "Connecting" and this
message begins to scroll down in the area shown in FIG. 9C and the next message
scrolls in from the top as the previous message "Connecting" is scrolling down.
FIG. 9D shows a particular stage in which the first message "Connecting" has
scrolled down to near the bottom while the second message "Negotiating" has
scrolled into the area and is scrolling down. FIG. 9E shows the second message
"Negotiating" has scrolled further down and the first message "Connecting" has
scrolled out of view. This scrolling in a vertical direction from top to bottom
continues as the third message "Buffering" scrolls into view as shown in FIG. 9F.
The next message may be either that shown in FIG. 9H ("Live Broadcast" in the case
of a streaming <u>live media</u>) or the time bar 271 with its associated markers as shown
in FIG. 9G in the case of a stored streaming media or other media.

Detailed Description Text (69):
FIGS. 10A-10C illustrate resizing a time-based media player generated as a GUI
and/or a display window for displaying time-based images, according to one
embodiment of the invention. In one embodiment, the size of the media player 200
again depicted in FIGS. 10A-10C and/or the motion <u>video</u> display window 202 may be
varied by dragging the resize control 208 (e.g., by depressing and holding a mouse
button or other pointing select button on the resize control 208, and then moving
the cursor using the mouse).

Detailed Description Text (70):
In one embodiment, the media player 200 is displayed at a default minimum window
size, which is shown in FIGS. 10A and 10B while the window 202 within the player
200 may have different sizes as shown in FIGS. 10A and 10B. The video display
window 202 may also have a minimum size, which in one embodiment is equal to
320.times.240. It will be appreciated that alternative embodiments may incorporate
various other minimum or default sizes or may not incorporate a minimum size.

Detailed Description Text (71):
In one embodiment, when the resize control 208 is dragged, two animated rectangles
are displayed: one animated rectangle represents the size of the display window 202
(any image displayed therein) and the other animated rectangle represents the size
of the media player 200 window (which contains the window 202). The resize control
208 may be "dragged" by the cursor to resize the motion video display window 202
(and any image displayed thereby) without resizing the window 200 until the size of
window 202 increases to a threshold size, which in one embodiment, corresponds to
substantially the edges of the media player 200, which is shown in FIG. 10B. When
this occurs, an attempt to further enlarge the motion video display window 202 will
enlarge the media player 200 window as well, which is shown in FIG. 10C. However,
if the user attempts to shrink the media player 200 window below the default
minimum size, only the display window 202 (and its animated rectangle) will shrink,
and the size of the media player 200 window will remain unchanged from the minimum
size.

Detailed Description Text (85):
At block 314, if the input detected at block 308 is directed to playback of time-
based media data (e.g., the user clicks an icon in the drawer), flow passes to
block 316, where the time-based media file is played back by the time-based media
player. For example, the user may click on a time-based media icon in the drawer
that references a time-based media file, such as a QuickTime movie, that is stored
locally or at a remote server. The movie would then be retrieved and played back
from local storage or streamed to the user's local system where the media player
would display the movie (e.g., in the display window 202) and/or playback audio
tracks of the movie.

Detailed Description Text (98):
At block 346, the auxiliary drawer window is "opened" for display. In one
embodiment, the auxiliary drawer is of a predetermined size. In alternative
embodiments, one or more auxiliary drawers may be selectively displayed at various
sizes (e.g., under user control), for example, as depicted by the drawer window
shown in FIGS. 4-5A. The auxiliary drawer may provide information about time-based
media and/or provide mechanisms for play back or other processing of time-based
media. Such mechanisms may include display and/or control of bass, treble, balance;
a graphic equalizer; forward/backward rewind, scan, skip, etc., or other controls
for play back or processing of time-based media information such as audio, video,
or a combination thereof. Once the auxiliary drawer is displayed, various controls
may be modified or selected by the user.

Detailed Description Text (101):
The medium 350 is shown storing a time-based media player routine 352 which, when
executed, provides a time-based media player as a GUI such as the player 200. The
time-based media player routine 352 includes a number of mechanisms for playing
back or otherwise processing time-based media processed by the time-based media
player. For example, a drawer routine 354 generates a drawer window, such as drawer
230, for display. The drawer may contain wells for displaying one or more
references (icons) to media, such as files/channels, which may be stored locally by
a digital processing coupled to the medium 350, or by a remote system, such as a
time-based media Web server. The drawer routine 354 may also facilitate altering of
the drawer to add, delete, rearrange, select for play back, etc., icons displayed
therein. An adaptive time/chapter selection routine 356 allows adaptively varying

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the display of time or chapter information (e.g., the speed at which such information is displayed as being scrolled, as described in conjunction with FIGS. 12A and 12B) in response to detection of an input characteristic (e.g., cursor drag speed when user input causes such information to be varied). A time bar selection marker routine 358 provides a time bar for display, as well as select start/end and current time marker functionality, as described, for example, with reference to FIGS. 8A-8C or 8D-8F. A streaming status message routine 360 provide streaming of status messages, for example, as described above with reference to FIGS. 9A-9B or 9C-9H. A player/display window resizing routine allows resizing of a time-based media player window and/or a motion <u>video</u> display window according to one or more of the methods described above, for example, with reference to FIGS. 10A-10F. Finally, an auxiliary drawer routine provides display areas in the form of drawers in addition to or in lieu of the favorite/channel drawer, which auxiliary drawers may provide information or additional mechanisms for display and play back or other processing of media.

CLAIMS:

7. The method of claim 1, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

27. The machine-readable medium of claim 21, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

35. The data processing system of claim 31, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

45. The method of claim 40, further comprising:

said functionality including a set of <u>audio</u> control mechanisms each for controlling a characteristic of <u>audio</u> information included in said media file.

46. The method of claim 40, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

47. The method of claim 45, wherein said set of <u>audio</u> control mechanisms comprises at least one of bass control, treble control, and balance control.

65. The machine-readable medium of claim 60, wherein said method further comprises:

said functionality including a set of <u>audio</u> control mechanisms each for controlling a characteristic of <u>audio</u> information included in said media file.

66. The machine-readable medium of claim 60, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

67. The machine-readable medium claim 60, wherein said set of <u>audio</u> control mechanisms comprises at least one of bass control, treble control, and balance control.

74. The data processing system of claim 70, wherein said time-based media file comprises one of <u>video</u> data, <u>audio</u> data, visual data, and a combination of <u>audio and video</u> data.

75. The data processing system of claim 70, wherein said set of function means comprises:

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at least one of a means for controlling <u>audio</u> bass output level, a means for controlling <u>audio</u> treble output level, and a means for controlling <u>audio</u> balance output level.

h   e b   b g ee e f   c   e   h bh   e ge